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FOLEY & LARDNER LLP
777 EAST WISCONSIN AVENUE
MILWAUKEE, WI 53202-5306

EXAMINER	
KETEMA, BENYAM	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/579,483	EICH ET AL.	
	Examiner	Art Unit	
	BENYAM KETEMA	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 May 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) *5 and 13* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-12 and 14-28* is/are rejected.

7)☐ Claim(s) *21,23,24,27 and 28* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 May 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *05/16/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-4, 6-12 and 14- 28 are presented for examination.

Claim Objections

2. Claim 21, 23-25 and 27-28 objected to because of the following informalities: **"used"** interface should be replaced by --**user** -- interface. Appropriate correction is required

3. Claims 5 and 13 are cancelled by the applicant.

Priority

4. The claim for priority form the US Provisional Application No. 60/523,433 filed on November 18/ 2003 is duly noted under 35 U.S.C. 120.

Information Disclosure Statement

5. The information disclosure statement (IDS) submitted on 05/16/2006 has been considered by the examiner.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under

the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-5, 7, 10-15, 20-23 and 26- 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Strasser et al. (US PGPub No 2003/0128191).

As in Claim 1, Strasser et al. discloses *a user interface for receiving inputs from a user* (Paragraph 1), *the user interface comprising:*

- *a touch sensitive surface having a plurality of regions,* (Paragraph 14 and Fig 1 item 12 and 26) discloses a plurality of user operable element 26 is overlying portion of display 12.
- *each region corresponding to a switch having a function;* (Paragraph 26 Fig 1 item 24) discloses operable element 26 may be automatically changed to match a change in the function of the operable element 26.
- *an interface disposed on the touch sensitive surface over at least one of the plurality of regions,* (Paragraph 28 and Fig 5 item 26, 40) discloses one of operable element 26 is disposed over touch screen 40.
- *the interface comprising a material that is at least partially transparent* (Paragraph15 line 1-4 Fig 1 item 18) discloses operable element 26 may comprise at least one transparent region 18.
- *configured to provide tactile feedback to the user;* (Paragraph16 line 1-4 and Fig 2 item 36, 38) discloses transparent region 18 is connected to

switch 36 and tactile feedback mechanism 38 so that the operator of the device can get tactile feedback.

- *the interface includes a plurality of buttons disposed over the plurality of regions* (Paragraph 14 and Fig 1 item 12 and 26) discloses a plurality of user operable element 26 is overlying on different portion (plurality) of display 12.
- *light is selectively provided to each of the plurality of buttons.* (Paragraph 22 and Fig 3 item 30)

As in Claim 2, Strasser et al. discloses *a user interface according to claim 1, wherein the interface comprises at least one button disposed over a region.* (Paragraph 14 and Fig 1 item 12 and 26) discloses a plurality of user operable element 26 is overlying portion of display 12.

As in Claim 3, Strasser et al. discloses *a user interface according to claim 2, wherein the function corresponding to the at least one button may be reconfigured by at least changing light emitted from the touch sensitive surface.* (Paragraph 25)

As in Claim 4, Strasser et al. discloses *a user interface according to claim 1, wherein the touch sensitive surface emits light that is visible through the interface.* (Paragraph 25)

As in Claim 7, Strasser et al. discloses *a user interface according to claim 1, wherein the touch sensitive surface includes a display for at least one of graphics and text, and the at least one graphics and text are visible through the interface.* (Paragraph 25 line 4-8) discloses graphics or/and text could be displayed under the interface (operable element 26).

As in Claim 10, Strasser et al. discloses *a user interface for a vehicle, the user interface comprising:*

- *a plurality of switches, each switch corresponding to a function;* (Paragraph 26 Fig 1 item 24) discloses operable element 26 may be automatically changed to match a change in the function of the operable element 26.
- *an interface disposed over at least one of the plurality of switches, the interface comprising* (Paragraph 16 Fig 2 item 18, 36 and 38) discloses each operable element 26 comprising transparent region 18 is disposed over switch 36 and 38.
- *a material that is at least partially transparent* (Paragraph15 line 1-4 Fig 1 item 18) discloses operable element 26 may comprise at least one transparent region 18.
- *configured to provide tactile feedback to a user;* (Paragraph16 line 1-4 and Fig 2 item 36, 38) discloses transparent region 18 is connected to switch 36 and tactile feedback mechanism 38 so that the operator of the device can get tactile feedback.

- *a display disposed beneath the interface,* (Paragraph 28 Fig 5 item 12 and 40) discloses display 12 is disposed under touch screen (interface).
- *the display configured to provide display signals corresponding to the function of each switch;* (Paragraph 26 Fig 1 item 24) discloses operable element 26 may be automatically changed to match a change in the function of the operable element 26.
- *the interface includes a plurality of buttons disposed over the plurality of switches* (Paragraph 14 and Fig 1 item 12 and 26) discloses a plurality of user operable element 26 is overlying on different portion (plurality) of display 12.
- *light is selectively provided to each of the plurality of buttons.* (Paragraph 22 and Fig 3 item 30)

As in Claim 11, Strasser et al. discloses *a user interface according to claim 10, wherein the interface includes at least one button disposed over a switch of the plurality of switches.* (Paragraph 14 and Fig 2 item 22 and 36) discloses a plurality of user operable element 26 (button) where #18 transparent region is the top part of it is disposed over plurality of switches 36.

As in Claim 12, Strasser et al. discloses a *user interface according to claim 10, wherein the display signals include light that is visible through the interface* (Paragraph 32).

As in Claim 14, Strasser et al. discloses *a user interface according to claim 10, wherein the display signals include text that is visible through the interface.* (Paragraph 21 line 4-8)

As in Claim 15, Strasser et al. discloses *a user interface according to claim 10, wherein the display signals include graphics that are visible through the interface.* (Fig 1 item 24)

As in Claim 20, *a user interface system according to claim 17, wherein a function corresponding to a contact region may be reconfigured by at least changing the display signals provided to an area of the display disposed beneath the contact region.* (Paragraph 26 Fig 1 item 24) discloses operable element 26 may be automatically changed to match a change in the function of the operable element 26.

As in Claim 21, Strasser et al. discloses *a used interface according to claim 1, wherein the switch is a rotary switch configured to twist with respect to the interface; and wherein twisting of the switch controls light which is selectively provided to any one of the plurality of regions on the touch sensitive surface, each region corresponding to a different function, wherein the switch is further*

configured to control any one of the functions. (Paragraph 17) discloses rotary switches can be used same as rocker switch is used in Paragraph 32, 33 and 34.

As in Claim 22, Strasser et al. discloses *a user interface according to claim 1, wherein the switch is configured to move in a direction not perpendicular to the face of the display; and wherein moving of the switch in a direction not perpendicular to the face of the display controls light which is selectively provided to any one of the plurality of regions on the touch sensitive surface, each region corresponding to a different function, wherein the switch is further configured to control any one of the functions.* (Paragraph 32, 33 and 34) discloses a rocker switch that moves in a direction not perpendicular to the face of the display and has a light that is related to the function of the display.

As in Claim 23, Strasser et al. discloses *a used interface according to claim 1, wherein the interface is further configured to provide tactile feedback in the manner of audible feedback.* (Paragraph 18 line 1-5)

As in Claim 25, Strasser et al. discloses *a used interface according to claim 10, further comprising: a rotary switch configured to twist with respect to the interface; wherein the rotary switch is configured to control a plurality of functions; and wherein twisting of the rotary switch controls light which is selectively provided to any one of the plurality of regions on the touch sensitive*

surface, each region corresponding to a function in the plurality of functions. (Paragraph 17) discloses rotary switches can be used same as rocker switch is used in Paragraph 32, 33 and 34.

As in Claim 26, Strasser et al. discloses *a user interface according to claim 10, wherein the switch is configured to move in a direction not perpendicular to the face of the display; and wherein moving of the switch in a direction not perpendicular to the face of the display controls light which is selectively provided to any one of the plurality of regions on the touch sensitive surface, each region corresponding to a different function, wherein the switch is further configured to control any one of the functions.* (Paragraph 32, 33 and 34) discloses a rocker switch that moves in a direction not perpendicular to the face of the display and has a light that is related to the function of the display.

As in Claim 27, Strasser et al. discloses *a used interface according to claim 10, wherein the interface is further configured to provide tactile feedback in the manner of audible feedback.* (Paragraph 18 line 1-5)

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which

said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 6, 8, 9, 16-19, 24 and 28 rejected under 35 U.S.C. 103(a) as being unpatentable over Strasser et al. (US PGPub No 2003/0128191) in view of Obradovich (US Pat No 6282464).

As in Claim 6, Strasser et al. discloses *a user interface* (Paragraph 1), as discussed above, but fails to disclose *the user interface is mounted in a vehicle.* However, Obradovich (Column 6 line 7- 10 and line 15- 19) discloses an interface 102a and b are installed on the dashboard of a vehicle. Strasser et al. and Obradovich are analogous art because they are from the common area of user interface device that has the versatility of a touch screen while still being as easy to operate as a conventional, mechanical switch. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the references (Strasser et al. and Obradovich), because Obradovich suggests multimedia information and control interface system for use in an automobile and

mounted close to the center of the dashboard of the automobile next to the steering wheel. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the interface device of Strasser et al. to be mounted in the interior of a vehicle as disclosed by Obradovich because Obradovich discloses an interface device that has touch screen is mounted on the dashboard of a vehicle as found in claim 6.

As in Claim 8, Strasser et al. discloses *a user interface* (Paragraph 1), as discussed above, but fails to disclose *the touch sensitive surface and interface are mounted in an automobile interior element.* However, Obradovich (Column 6 line 7- 10 and line 15- 19) discloses an interface 102a and b are installed on the dashboard of a vehicle. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the interface device of Strasser et al. to be mounted in the interior of a vehicle as disclosed by Obradovich because Obradovich discloses an interface device that has touch screen is mounted on the dashboard of a vehicle as found in claim 8.

As in Claim 9, Strasser et al. discloses *a user interface* (Paragraph 1), as discussed above, but fails to disclose *the touch sensitive surface and interface are mounted in an automobile interior element.* However, Obradovich (Column 6 line 7- 10 and line 15- 19) discloses an interface 102a and b are installed on the dashboard of a vehicle. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the interface device of

Strasser et al. to be mounted in the interior of a vehicle as disclosed by Obradovich because Obradovich discloses an interface device that has touch screen is mounted on the dashboard of a vehicle as found in claim 9.

As in Claim 16, Strasser et al. discloses *a user interface* (Paragraph 1), *the plurality of switches* (Fig 1 item 26), as discussed above, but fails to disclose *interface and display are mounted in a automobile interior element.* However, Obradovich (Column 6 line 7- 10 and line 15- 19) discloses an interface 102a and b are installed on the dashboard of a vehicle. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the interface device of Strasser et al. to be mounted in the interior of a vehicle as disclosed by Obradovich because Obradovich discloses an interface device that has touch screen is mounted on the dashboard of a vehicle as found in claim 16.

As in Claim 17, Strasser et al. discloses *a user interface system* (Paragraph 1), *comprising:*

- *a display* (Fig 1 item 12)*; an interface disposed over the display* (Paragraph 22 and Fig 5 item 12 and 40) *and comprising;*
- *a material that is at least partially transparent* (Paragraph15 line 1-4 Fig 1 item 18) discloses operable element 26 may comprise at least one transparent region 18.
- *configured to provide tactile feedback to a user,* (Paragraph16 line 1-4 and Fig 2 item 36, 38) discloses transparent region 18 is connected to

switch 36 and tactile feedback mechanism 38 so that the operator of the device can get tactile feedback.

- *the interface including a plurality of contact regions* (FIG 1 item 26) discloses a plurality of input areas (*contact regions*), *each contact region corresponding to a switch having a function* (Paragraph 26 Fig 1 item 24) discloses operable element 26 may be automatically changed to match a change in the function of the operable element 26.*;*
- *a control circuit coupled to the display and the interface* (Fig 8 item 60) *,*
- *the control circuit configured to receive control data from the interface in response to actuation of a contact region,* (Fig 8 item 60, 62 and 26) discloses operable element 26 can be activated (depressed) by the user and the control data is sent thru SIO via bus and interface to the processor.
- *to provide display signals to the display based on the corresponding switch function;* (Paragraph 26 Fig 1 item 24) discloses operable element 26 may be automatically changed to match a change in the function of the operable element 26.
- *a memory coupled to the control circuit and configured to store display data.* (Fig 8 item 60 and 64)
- However Strasser et al. fails to disclose *the control data to a vehicle system based on the corresponding switch function.* But, Obradovich (Column 5 line 1- 53) discloses an interface with touch-screen and displayed option selection capabilities, so that the user is able to obtain

information on and control selectable functions of the automobile such as the instrument panel, navigation function and more. Strasser et al. and Obradovich are analogous art because they are from the common area of user interface device that has the versatility of a touch screen while still being as easy to operate as a conventional, mechanical switch. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the references (Strasser et al. and Obradovich), because Obradovich suggests multimedia information and control interface system for use in an automobile and mounted close to the center of the dashboard of the automobile next to the steering wheel. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the interface device of Strasser et al. to be mounted in the interior of a vehicle as disclosed by Obradovich because Obradovich discloses an interface device that has touch screen is mounted on the dashboard of a vehicle as found in claim 17.

As in Claim 18, Strasser et al. discloses *a user interface system* (Paragraph 1)*according to claim 17, wherein the display is a touch sensitive surface having a plurality of regions, each region corresponding to a switch having a function.* (Paragraph 14 and Fig 1 item 12 and 26) discloses a plurality of regions (four user operable element 26) labeled L and (display 12) labeled U. (Paragraph 26 Fig 1 item 24) discloses operable element 26 may be automatically changed to

match a change in the function of the operable element 26, hence operable element 26 has different function.

As in Claim 19, Strasser et al. discloses *a user interface system* (Paragraph 1) *according to claim 17, wherein the display* (Paragraph 13 line 4 and fig 1 item 12), *the interface* (Paragraph 1), *the control circuit* (Paragraph 136 line 2 and fig 8 item 60) *and the memory* (Paragraph 36 line 4 and fig 8 item 64) as discussed above, but fails to disclose *are mounted in an automobile interior element.* However, Obradovich (Column 6 line 7- 10 and line 15- 19) discloses an interface 102a and b are installed on the dashboard of a vehicle. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the interface device of Strasser et al. to be mounted in the interior of a vehicle as disclosed by Obradovich because Obradovich discloses an interface device that has touch screen is mounted on the dashboard of a vehicle as found in claim 19.

As in Claim 24, Strasser et al. discloses *a used interface system* (Paragraph 1) *according to claim 1, wherein the interface is further configured to provide tactile feedback in the manner of vibratory feedback.* (Paragraph 18) discloses tactile feedback is incorporated into user interface device. It also discloses type of feedback such as "click" sound. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate another form of tactile feedback (i.e. vibratory) in order to give the some kind of feedback to the user.

Therefore the uses of vibratory feedback in a design choose.

As in Claim 28, Strasser et al. discloses *a used interface system* (Paragraph 1) *according to claim 10, wherein the interface is further configured to provide tactile feedback in the manner of vibratory feedback*. (Paragraph 18) discloses tactile feedback is incorporated into user interface device. It also discloses type of feedback such as "click" sound. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate another form of tactile feedback (i.e. vibratory) in order to give the some kind of feedback to the user. Therefore the uses of vibratory feedback in a design choose.

Prior Art

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent No US PG Pub No. 2002/0033800 discloses computer system 2 that would be used by a taxi company or similar company which would allow a taxi driver to have instant access to information as needed inside automobile. Chou et al. (US Pat No. 6,181,996) discloses a controller for controlling a vehicle information system user interface based upon an output signal from the sensor.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENYAM KETEMA whose telephone

number is (571)270-7224. The examiner can normally be reached on Monday-Friday 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, SHALWALA BIPIN H can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ Benyam Ketema /

Examiner, Art Unit 2629

/Bipin Shalwala/

Supervisory Patent Examiner, Art Unit 2629